



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/549,903	09/20/2005	Kazunori Kawasaki	Q90097	7158
23373	7590	10/24/2007	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			VAN, QUANG T	
ART UNIT		PAPER NUMBER		
3742				
MAIL DATE		DELIVERY MODE		
10/24/2007		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/549,903	KAWASAKI ET AL.
	Examiner	Art Unit
	Quang T. Van	3742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-4 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 20 September 2005 is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 9/20/05.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application
- 6) Other: _____.

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

2. The abstract of the disclosure is objected to because it contains more than 150 words, and the legal phraseology such as "means" or "comprises" or "**comprising**" often used in patent claims should be avoided in the abstract. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, "the auxiliary electrodes", recited in lines 7-8, has no antecedent basis from the claim, because "an auxiliary electrode", recited in line 2, was introduced early in the claim. The term " each of the electrostatic field generating interspaces, the laser", recited in line 8, was missing from the original claim 1. The term "the laser irradiators", recited in line 9, has no antecedent basis from the claim, because "a laser irradiator", recited in line 4, was introduced early in the claim. The term "the main electrode",

recited in lines 8 and 9, is indefinite, it is suggested to change to “the main electrodes” for consistency with throughout the claims, since more than one main electrodes positioned at upper most according to figure 1. Corrections are required.

In claim 2, “the auxiliary electrodes”, recited in line 7, has no antecedent basis from the claim, because “an auxiliary electrode”, recited in line 2, was introduced early in the claim. The term “the laser irradiators”, recited in line 8, has no antecedent basis from the claim, because “a laser irradiator”, recited in line 4, was introduced early in the claim. The term “the main electrode”, recited in lines 8 and 10, is indefinite, it is suggested to change to “the main electrodes” for consistency with throughout the claims, since more than one main electrodes positioned at upper most according to figure 1. Corrections are required.

In claim 4, “an electrostatic levitation furnaces”, recited in line 3, has an error typo, and should be changed to “an electrostatic levitation furnace”. The term “a laser beam” recited in line 5, 6-8, should be changed to “the laser beam”, since it’s already previous cited in line 4. The terms “a laser irradiator”, recited in line 10, and “a laser irradiator”, recited in line 6, are the same? If not, it is suggested to change the term “a laser irradiator”, recited in line 10, to “an another laser irradiator” or “a second laser irradiator”. Clarification is needed. Also, please clarify the term “electrostatic field generating interspaces”, recited in lines 5, 11-12, and “electrostatic field generating interspace”, recited in lines 9, 13-14, and 19-20 and throughout the claim. The term “a main electrode”, recited in lines 13-14, is the same with “one main electrode” recited in line 6, or the same with “the other main electrode”, recited in line 10. Clarification is

requested. The term "both of irradiation of laser beam" recited in line 17, has a typo error, and should be changed to "both of irradiation of laser beams".

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Kawasaki et al (US 7,061,964) an electrostatic levitation furnace. Wiener et al (US 3,689,324) a process for obtaining preferred orientation in zirconium and its alloy.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quang T. Van whose telephone number is 571-272-4789. The examiner can normally be reached on 8:00Am 5:00Pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tu Hoang can be reached on 571-272-4780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

QV
October 23, 2007


Quang T Van
Primary Examiner
Art Unit 3742